

IN THE CLAIMS:

1. (Currently Amended) A heating treatment device comprising:
a heater for generating heat for treating living-body tissues;
a driving circuit for driving the heater;
an initial characteristics judging device for judging the initial characteristics of the heater;
and
a calibration device for calibrating the driving circuit on the basis of the judgment
~~judgement~~ results of the initial characteristics judging device.

2. (Currently Amended) The heating treatment device according to claim 1, further comprising:
a memory device in which a plurality of resistance value tables corresponding to changes in the heating temperature of the heater are stored respectively in association with a plurality of treatment tools;
a table reading device for selectively reading out resistance value data from the plurality of resistance value tables stored in the memory device, on the basis of the ~~judgement~~ judgment results of the initial characteristics judging device;
an operating device for setting the temperature level of the heater;
a resistance value data selecting device for selecting resistance value data from a resistance value table selected by the table reading device, on the basis of the set temperature set by the operating device; and

a control section for controlling the supply of electrical power to the heater by a power supply device, on the basis of the resistance value data selected by the resistance value data selection device and the detection results of a resistance value detection device.

3. (Original) The heating treatment device according to claim 1, further comprising:
a resistance value detecting device for detecting a resistance value of the heater on the basis of the power supplied to the heater;

an environmental temperature measuring device for measuring the ambient temperature of the heating treatment device;

a temperature correcting device for calculating a heating set value on the basis of the detection results detected by the resistance value detecting device and the measurement results measured by the environmental temperature measuring device; and

an output power control section for controlling the electrical power supplied to the heater, on the basis of the heating set value calculated by the temperature correcting device.

4. (Original) The heating treatment device according to claim 1, further comprising:

a plurality of treatment tools each respectively having a heater;

a driving device having a connector receiving section composed in such a manner that at least one of the plurality of treatment tools can be attached to or detached therefrom, selectively, and a power supply device for supplying electrical power to the heater while controlling the amount of heat generated by the heater of the treatment tool attached to the connector receiving section.

5. (Original) The heating treatment device according to claim 4, wherein the treatment tool comprises:

a treatment section for grasping and treating living-body tissues; and

a connector which is freely attachable to and detachable from the connector receiving section of the driving device;

wherein the initial characteristic judged by the initial characteristics judging device is an initial resistance value of the heater.

6. (Original) The heating treatment device according to claim 5, wherein the heater is provided in the treatment section.

7. (Currently Amended) A heating treatment device comprising:

a heater for generating heat for treating living-body tissues;

a driving circuit for driving the heater by supplying electrical power thereto;

a resistance value detecting circuit for detecting a resistance value of the heater on the basis of the power supplied to the heater by the driving circuit;

a control section for controlling the driving of the heater by the driving circuit on the basis of the detection results of the resistance value detecting circuit;

an initial characteristics judging device for judging the initial characteristics of the heater;

and

a calibration device for calibrating the driving circuit on the basis of the judgment ~~judgement~~ results of the initial characteristics judging device.

8. (Original) The heating treatment device according to claim 7, further comprising:
a plurality of treatment tools each respectively having a heater;
a driving device having a connector receiving section composed in such a manner that at least one of the plurality of treatment tools can be freely attached thereto or detached therefrom, selectively, and a power supply device for supplying electrical power to the heater while controlling the amount of heat generated by the heater.

9. (Original) The heating treatment device according to claim 8,
wherein the treatment tool comprises:
a treatment section for grasping and treating living-body tissues;
and a connector which is freely attachable to and detachable from the connector receiving section of the driving device;
wherein the initial characteristic judged by the initial characteristics judging device is an initial resistance value of the heater.

10. (Original) The heating treatment device according to claim 9, wherein the heater is provided in the treatment section.

11. (Currently Amended) A heating treatment device comprising:
a plurality of treatment tools each having a heater for generating heat for treating living-body tissues;
a driving device having a connector receiving section composed in such a manner that at least one of the plurality of treatment tools can be attached to or detached therefrom, selectively,

and a driving circuit for driving the heater by supplying electrical power thereto;

a resistance value detecting circuit for detecting a resistance value of the heater on the basis of the electrical power supplied to the heater by the driving circuit;

a control section for controlling the supply of electrical power by the driving circuit, on the basis of the detection results of the resistance value detecting circuit;

an identifying device provided respectively for each one of the plurality of treatment tools;

a judging device for judging at least one treatment tool connected to the connector receiving section, on the basis of the identifying device; and

a calibration device for calibrating the driving circuit on the basis of the judgment ~~judgement~~ results of the judging device.

12. (Original) The heating treatment device according to claim 11, wherein the identifying device comprises a treatment tool identifier for indicating the type of the treatment tool and a heating element identifier holding respective initial resistance value information for individual heaters.

13. (Original) The heating treatment device according to claim 11, wherein the treatment tool comprises:

a treatment section for grasping and treating living-body tissues; and

a connector which can be freely attached to and detached from the connector receiving section of the driving device;

wherein the identifying device is provided in the treatment section or the connector.

14. (Original) The heating treatment device according to claim 11, wherein the judging device judges the type of the treatment tool and the initial resistance value thereof.

15. (Currently Amended) A heating treatment device comprising:

a plurality of treatment tools each having a heater for generating heat for treating living-body tissues;

a driving device having a connector receiving section composed in such a manner that at least one of the plurality of treatment tools can be freely attached to or detached therefrom, selectively, and a power supply device for supplying electrical power to the heater while controlling the amount of heat generated by the heater;

a resistance value detecting device for detecting a resistance value of the heater on the basis of the electrical power supplied by the power supply device;

a memory device for storing a plurality of resistance value tables corresponding to changes in the heating temperatures of the heater, respectively in association with a plurality of treatment tools;

a judging device for judging at least one treatment tool connected to the connector receiving section;

a table reading device for selectively reading out resistance value data from the plurality of resistance value tables stored in the memory device, on the basis of the judgment results of the judging device;

a calibration device for calibrating the power supply device on the basis of judgment results from the judging device;

an operating device for setting the temperature level of the heater;

a resistance value data selection device for selecting resistance value data from the resistance value table selected by the table reading device, on the basis of the set temperature set by the operating device; and

a control section for controlling the supply of power to the heater by the power supply device, on the basis of the resistance value data selected by the resistance value data selecting device and the detection results of the resistance value detecting device.

16. (Original) The heating treatment device according to claim 15, wherein the treatment tool comprises:

a treatment section for grasping and treating living-body tissues; and

a connector which can be freely attached to and detached from the connector receiving section of the driving device;

wherein the judging device judges the type of the treatment tool and an initial resistance value thereof.

17. (Original) A heating treatment device comprising:

a treatment tool having a heater for generating heat for treating living-body tissues;

a resistance value detecting device for detecting the resistance value of the heater, on the basis of the electrical power supplied to the heater;

an environmental temperature measuring device for measuring the ambient temperature of the heating treatment device;

a temperature correcting device for calculating a heating set value on the basis of the

detection results detected by the resistance value detecting device and the measurement results measured by the environmental temperature measuring device; and

an output power control section for controlling the electrical power supplied to the heater of the treatment tool, on the basis of the heating set value calculated by the temperature correction device.

18. (Currently Amended) A method for controlling the heating operation of a heating treatment device having a heater for generating heat for treating living-body tissues and a control section for controlling the amount of electrical power supplied to the heater, comprising:

an initial characteristics judging step of judging the initial characteristics of the heater;
a calibration step for calibrating the heater on the basis of judgment results from the judging step; and

a correction step of correcting the control of the amount of supplied electrical power by the control section, on the basis of the judgment results of the initial characteristics judgment step.